

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER <b>D2000-1WUS</b>
INTERNATIONAL APPLICATION NO. <b>PCT/US04/10229</b>	INTERNATIONAL FILING DATE <b>April 2, 2004</b>	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>10/501,442</b>
PRIORITY DATE CLAIMED <b>April 4, 2003</b>		
TITLE OF INVENTION <b>PECTATE LYASES, NUCLEIC ACIDS ENCODING THEM AND METHODS FOR MAKING AND USING THEM</b>		
APPLICANT(S) FOR DO/EO/US <b>Kerovuo, Janne; Solbak, Arne; Gray, Kevin; McCann, Ryan; Purohit, Shalaka; Gerendash, Joel; Janssen, Giselle; Dahod, Samun</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.		
2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.		
3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.		
4. <input type="checkbox"/> The US has been elected (Article 31).		
5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul>		
6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul>		
7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul>		
8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).		
9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). <b>5 pages</b>		
10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).		
<b>Items 11 to 20 below concern document(s) or information included:</b>		
11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.		
12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.		
13. <input type="checkbox"/> A preliminary amendment.		
14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.		
15. <input type="checkbox"/> A substitute specification.		
16. <input type="checkbox"/> A power of attorney and/or change of address letter.		
17. <input checked="" type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. <b>(1 CD)</b>		
18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).		
19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/501,442</b>		INTERNATIONAL APPLICATION NO. <b>PCT/US04/10229</b>		ATTORNEY'S DOCKET NUMBER <b>D2000-1WUS</b>	
20. Other items or information:  <b>Response to Notification of Missing Requirements (3 pages); Copy of Notification of Missing Requirements (2 pages); Petition for 3 Month Extension of Time (1 page, 2 copies); Statement to Support Filing and Submission (2 pages); Paper Sequence Listing (144 pages); Return postcard</b>					
The following fees have been submitted				<b>CALCULATIONS</b>	<b>PTO USE ONLY</b>
21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$300				\$ 0.00	
22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))					
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0					
All other situations..... \$200					
23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))					
If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0					
Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100					
International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400					
All other situations..... \$500					
<b>TOTAL OF 21, 22 and 23 =</b>				<b>0.00</b>	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250	\$ 0.00	
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	- 20 =		x \$ 50		
Independent claims	- 3 =		x \$200		
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360		
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 130.00</b>	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
<b>SUBTOTAL =</b>				<b>\$ 65.00</b>	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
<b>TOTAL NATIONAL FEE =</b>				<b>\$</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$ 0.00	
<b>TOTAL FEES ENCLOSED =</b>				<b>\$ 65.00</b>	
				Amount to be refunded:	\$
				Amount to be charged	\$ 65.00

11/03/2005 KWAYPAGE 00000065 500661 10501442

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 50-0661 in the amount of \$ 65.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0661. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Lynn Linkowski  
Diversa Corporation  
Intellectual Property Department  
P.O. Box 910550  
San Diego, CA 92191-0550  
(858) 526-5450

SIGNATURE

Lynn M. Linkowski

NAME

47,320

REGISTRATION NUMBER

CUSTOMER NO. 29062

**EXPRESS MAIL Label Number EV409245386US Date of Deposit: October 29, 2005. I hereby certify under 37 CFR 1.10 that this correspondence is being deposited with the U.S. Postal Service as Express Mail with sufficient postage on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Signature: \_\_\_\_\_

Lynn Linkowski

29 OCT 2005

Docket No. D2000-1WUS

10/501 442

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AS

In re Patent Application of:  
Janne Kerovuo, et al.

Application No. 10/501,442  
Art Unit: Not Yet Assigned  
Examiner: Not Yet Assigned  
Confirmation No.: 8134

U.S. National Phase of PCT Application No. PCT/US04/10229  
International Filing Date: April 2, 2004

For: PECTATE LYASES, NUCLEIC ACIDS ENCODING THEM AND METHODS  
FOR MAKING AND USING THEM

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35

U.S.C. 371

MS PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notification of Missing Requirements dated May 31, 2005 (the "Notification"), for which a response was due July 31, 2005. Filed herewith is a Petition and fee for a three (3) month extension of time, thereby extending the deadline for response to October 31, 2005.

Provided with this Response are the following items stipulated by the  
Notification:

- 1) Oath or Declaration with surcharge fee; and
- 2) Sequence Listing in both computer readable and paper form with  
Statement to Support Filing.

Prior to examination of the above-identified application, the Examiner is respectfully requested to enter the following Sequence Listing and remarks.

In the Sequence Listing

Please insert a paper copy of the Sequence Listing after the abstract in the above-captioned patent application. A computer readable form (CRF) of the Sequence Listing accompanies this response.

**CONCLUSION**

We believe this Response satisfies the requirements of the Notification and completes the requirements for acceptance under 35 U.S.C. 371.

In the event it is determined that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connections with the filing of this document to Deposit Account No. **50-0661**, referencing attorney docket number D2000-1WUS. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: October 29, 2005

Respectfully submitted,

By 

Lynn M. Linkowski

Registration No. 47,320

Diversa Corporation

4955 Directors Place

San Diego, CA 92121

(858) 526-5450

**Certificate of Mailing by Express Mail:**

EXPRESS MAIL Label Number EV409245386US Date of Deposit: October 29, 2005. I hereby certify under 37 CFR 1.10 that this correspondence is being deposited with the U.S. Postal Service as Express Mail with sufficient postage on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Mailing: October 29, 2005

  
Lynn Linkowski



## UNITED STATES PATENT AND TRADEMARK OFFICE

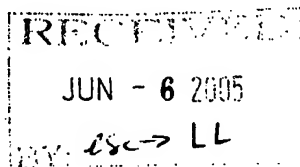
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO. 10/501,442	FIRST NAMED APPLICANT Janne Kerovuo	ATTY. DOCKET NO. D2000-1WUS
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INTERNATIONAL APPLICATION NO. PCT/US04/10229
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LA. FILING DATE 04/02/2004	PRIORITY DATE 04/04/2003
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29062  
DIVERSA CORPORATION  
4955 DIRECTORS PLACE  
SAN DIEGO, CA 92121



CONFIRMATION NO. 8134  
371 FORMALITIES LETTER  
\*OC000000016135541\*  
\*OC000000016135541\*

Date Mailed: 05/31/2005

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

**RESPONSE DUE TO** Miss P.T.S.

- Indication of Small Entity Status
- Copy of the International Application filed on 07/13/2004
- Copy of the International Search Report filed on 07/13/2004
- Preliminary Amendments filed on 07/13/2004
- Information Disclosure Statements filed on 07/13/2004
- U.S. Basic National Fees filed on 07/13/2004
- Power of Attorney filed on 07/13/2004

**Reminder** \_\_\_\_\_  
**Response Due** 7-31-05  
**1<sup>st</sup> Extension** 8-31-05  
**2<sup>nd</sup> Extension** 9-30-05  
**3<sup>rd</sup> Extension** 10-31-05  
**4<sup>th</sup> Extension** 11-30-05  
**5<sup>th</sup> Extension** 12-31-05  
=

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- This application clearly fails to comply with the requirements of 37 CFR. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing", an initial paper or compact disc copy of the "Sequence Listing", as well as an amendment directing its entry into the application. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file

in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

- A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- For Rules Interpretation, call (571) 272-0951
- For Patent Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patent Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

KAYA L LEWIS BALTIMORE

Telephone: (703) 308-9100 EXT 202

**PART 1 - ATTORNEY/APPLICANT COPY**

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/501,442	PCT/US04/10229	D2000-1WUS